

JOURNAL

1922 PPM

4738-5763

Collector: Philip A. Munz

4738-5763

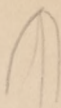
Botanical notes

of this

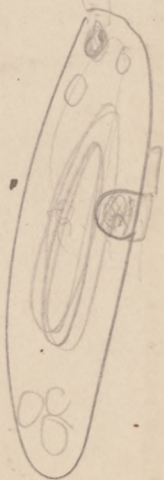
If this book is found
and returned to owner,
he will gladly pay
reward

P. A. Munz

M



Philip A. Munn
Pomona College
Claremont, California



Trip with M. French Gilman Arthur
 Gilman Milton Smith David Keck
 and Don Meadows to Colorado Desert,
 spring vacation 1922

- | | | | | |
|------|-----------------------|--------|--------------------------|---|
| 4738 | 1 mi. north of Mecca | 4/8/22 | sandy wash | <i>Parosela mollis</i> |
| 4739 | same | | | <i>Astragalus aridus</i> Gray |
| 4740 | " | | erect type | name
<i>hispidum</i> Gray |
| 4741 | 1/2 mi. east of Indio | | sandy soil | |
| | along roadside | | | <i>Oligomeris linifolia</i> |
| 4742 | same | | | <i>Monolepis Nuttalliana</i> |
| 4743 | same | | | <i>Astragalus linatus</i> Sheld |
| 4744 | " | | | <i>Cryptantha</i> |
| 4745 | Shaver's Well | 4/9 | Nemacladus sandy wash | |
| 4746 | " | | | <i>Trichoptilium incisum</i> Gray |
| 4747 | " | | | <i>Oenothera gammaeflora</i> Torr |
| 4748 | " | | | <i>Oenothera humilis</i> |
| 4749 | " | | edge of wash among rocks | |
| | | | rocky under bushes | |
| | Slopes | | | <i>Perityle Emoryi</i> Torr |
| 4750 | " | | | <i>Thelypodium</i> |
| | | | sandy wash | |
| 4751 | " | | | <i>Eriogonum Thomasii</i> Torr |
| | | | | <i>Oenothera brevipes</i> |
| 4752 | " | | | <i>Oenothera</i> |
| 53 | " | | | <i>Hoffmannseggia microphylla</i> Torr |
| 54 | " | | | <i>mirabilis calif glutinosa</i> (Nelson) |
| 55 | " | | | <i>Cryptantha maritima</i> |
| 56 | " | | | <i>Antirrhinum Cooperi</i> Gray |
| | | | | occasional |

#757 Shavers Well, wash & Cryptantha
among rocks burgigera (gray)

one plant only, small-flowered form
#758 Shavers Well base of rock Phacelia crenulata
abundant, large-flowered form sandy wash
#759 Phacelia crenulata

60 Brantaea parviflora, Wats.
very common in all canyons, Crocopia, Eagle, Chuckawalla

61 Phacelia under
common in Crocopia, Eagle, Chuckawalla mts. shrubs.

62 forming great fields in Chuckawalla Valley

63 Cryptantha angustifolia

64 Phacelia among rocks

65 Lotus very abundant in Chuckawalla
Valley, mts., covering great areas
sandy wash

66 Phacelia campanularia
sandy

67 common in washes of Crocopia
Elymus inornatus Eagle, Chuckawalla

68 Oenothera refracta Wats.

69 Aschscholtzia minutiflora

70 Fagonia calif. Benth

71 " " " "

72 Oenothera cardiophylla

73 Philabothella

74 Euphorbia

75 Oenothera

76 Calycoseris Parryi

~~77~~ Chuckawalla Mts, 1 1/2 miles below
Corn Gap

4777 sandy wash Parosela Parryi

greene

78

Sandy wash frequent

79

*Astragalus lentiginosus*var *Yucca caninus* Jones
" slopes "

80

base of rocks *Pectocarya*

81

Draba cuneifolia Smorae
common

82

Sandy wash (large clumps
occasional along wash shrubby at base)

83

Paritaria debilis Forst
under rocks in narrow side canyon
common " shelter of rocks
in many canyons

84

narrow *Simmondsia calif* Nutt

among rocks

85

→ *Oenothera cardiophylla* near *splendens* M. & J.

86

Aster tortifolius (T. & G.) Gray
(dry)

87

crucifer

moist

88

Cryptantha

89

Lepidiedia nevadensis Wats

90

Fagonia calif Benth

91

Phacelia micrantha Torr

92

Galium stellatum

93

" *Cryptantha*

94

" "

95

wash *Oenothera bi-ripes* Gray

96

among rocks

Senecio mohavensis

97

" *Muhlenbergia microsperma*

4798 Among rocks, common

99

"

4800

"

01

"

moist

02

✓

"

4803 Nama Hayfields April 9 erect form

4

Pectocarya

"

"

5

10 miles east of Shavers Well

6

"

7

Mirabilis

"

8

"

9

Shavers Well

10

Base of Eagle Mtns

11

"

12

Hayfields

13

"

14

Base Eagle Mtns

15

Hayfields

16

"

17

Base Eagle Mtns

18

Below Shavers Well

19

Hayfields

20

So Base Eagle Mtns

Notholaena Parryi Eaton
Hofmeisteria pleuriseta Gray
Cryptantha
Stylocline micropoides Gray
~~*Stylocline*~~

, bluer in color than prostrate form
 name *hispidum* Gray

Pectocarya penicillata *
Thelypodium

Lepidium

mirabilis Calif *glutinosus* (Nelson)

Dithyrea Calif Wats

Peucephyllum Schottii Gray

Lycium Andersonii Gray

Mentzelia

Malacothrix Coulteri Gray

Physalis

Lesquerella Palmeri Wats

Plantago

Malacothrix Calif DC

Psathyrotes ramosissima (Torrey) Gray

Chaenactis stevioides W & A

Euphorbia eriantha

4821	Base Eagle Mtns	
22	"	
23	"	Notholaena
24	"	
25	"	
26	"	
27	"	Mentzelia
28	"	
29	"	
30	"	Phacelia
31	"	Eriophyllum
32	"	
33	"	
34	"	

Chuckawalla Mtns, Corn Springs

4835	Common	3 ft. tall
36	Mentzelia	sandy
37	Sides of rocky gorge	at base
38	Rocky slope	in high gorge
39	Psathyrotes	desert mosaic
40		"
41		" ✓
42		"
43		rocky slope, in
44		"

Lepidium
gilii

Barryi Eaton

Nemacladus

Mohavea viscida Gray

Minimus Bigelovii Gray

involucrata Wats

Wedeliella incarnata Chell

Galium stellatum

Phacelia

Monoptilon belliioides (Gray) Hall

Hibiscus denudatus

Ditaxis californica (Brand)

2d coll
of sp

" serrata

and vicinity April 10.

Sphaeralcea

wash & rocky hills Mentzelia involucrata

of rocks

Gilia

col. by W. F. Gilman

Calochortus flexuosus?

Psathyrotes ramosissima (Torr)

Trichoptilium incisum Gray

sandy washes

Phacelia crenulata Torr

Chaenactis carphoclinia

high gorge

Amsonia brevifolia Gray

" tomentosa Torr

- 4845 Sandy wash & among rocks in
 46 Among ^{scattered} rocks in upper canyon
 47 along wash & on rocky slopes
 48 upper canyon
 49 edge of sandy wash
 50 " "
 51 Under mesquite on loamy soil
 52 Sandy wash
 53 " "
 54 " "
 55 " ✓ on rocky hills
 56 " "
 57 " "
 58 Base of shading rocks
 59 Sandy wash & open soil on
 60 Edge of washes
 61 Base of high sheltering rocks
 62 Single large plant in sandy
 63 Base of high shading rocks
 64 " "
 65 Single patch of 40-50 feet arboresc. a
 66 On desert mosaic
 67 On desert mosaic
 68 Among shrubs at edge of wash
 69 Sandy washes & desert mosaics

high gorge

Astragalus Nuttallianus ^{verging toward var. cedrosensis.} T & G

Lotus rigidus (Benth)

Psilostrophe Cooperi (Gray) Greene

Lycium Torreyi Gray

" " "

at Corn Springs *Nicotiana attenuata* Torr

Nemacladus

Oenothera epilobioides ^{Gray} ~~chamaenerodes~~

~~Oenothera~~

(everywhere on open soil on hills)

Mentzelia

Sisymbrium

rocky slopes *Chorizanthe brevicornis* Wats

Condalia lycioides canescens (Gray) Treb.

Targionia hypophylla L.

wash

Cassia Covessii Gray

Dreumatodon obtusifolius

Grimmia pulvinata

on rocks on high slope *Selaginella emmophila* ^{Maxon}

Monoptilon belliioides (Gray) Hall

Gilia setosissima Gray

Antirrhinum cooperi Gray

Guigonum Thomasii Torr

- 4870 Desert mosaics & sandy washes
 71 Base of rocks in rocky gorge
 72 Desert mosaics
 73 "
 74 "
 75 ~~Indian Wells, 4/14~~ sand dunes
 chuckawallas ~~gravelly slopes~~
 76 ↓ "
 77 soil (clay) at tops of high slopes
 78 desert mosaics
 79 open slopes
 80 Edge of clearing at Corn Springs
 81 Single plant in small rocky gulch
 82 Abundant on rocky slopes and
 83 rocky slope
 84 "
 85 occasional along edge of sandy
 86 " " sandy washes
 87 " in rocky gorges
 April 11 chuckawallas
 88 desert mosaics
 89 along washes
 90 rocky & gravelly slopes;
 91 occasional on open slopes
 92 desert mosaics & along washes

Parosela mollis (Benth) Heller

Gilia

Calycoseris Wrightii Californica Brandege

Phacelia rotundifolia Torr

Malvastrum rotundifolium Gray

Cryptantha

Eschscholzia minatiflora var. *Parisii* (Greene)

Coldenia canescens subnuda Johnston ined.

Chorizanthe rigida T & G

Plantago

Heliotropium curassavicum L.

Vincetoxicum hastulatum (Gray) Heller

in small rocky gorges *Tetradlea Hallii* Brand.

Ditaxis sericophylla (Gray) Heller

Rafinesquia calif. Nutt

washes

Salazaria mexicana Torr

often in small shrubs *Mentzelia*

Eriogonum fasciculatum polifolium

Atrichoseris platyphylla Gray

Hyptis Emoryi

covering miles of slope *Encelia farinosa* Gray

Encelia eriocephala Gray

common

Oenothera brevipes Gray
cardiophylla

- 4893 Occasional on rocky slopes
 4894 common in washes
 4895 " "
 4896^a edge of wash
 4897 common on " rocky hillides
 4898 Occasional on " "
 4899 " " sandy wash
 4900
 01 Common on open slopes
 02 Occasional in ~~the~~ gulch in
 03 Common in shelter of bushes
 4 " " upper parts of
 5 " " shelter of rocks
 6 " " " "
 7 Occasional " rocks in
 8 " " sandy wash
 9 Single plant in " "
 10 Common " " "
 11 " " " "
 12 About Corn Springs only
 13 Sandy wash
 14 " " single plant
 15 " " common
 16 " " "

Hibiscus denudatus

Oenothera brevipes Gray

" " "

Oenothera

Weddellia incarnata Chell.

Soumneria splendens Engelm

Trixis calif.

Lepidium Fremonti Wats

upper canyon Beloperone calif Benth

rocks

~~Amorpha~~ ~~Lepidium~~ ~~terrestris~~ Gray

canyons

Delphinium

Lepidium

" "

upper canyons Nolina Parryi Wats

Mentzelia involucreta Wats

Pentstemon pseudospectabilis Jones

& about rocks Physalis

opening in late afternoon closing in morning

Gilia Bigelovii Jonesii

Pluchea

Oenothera scapoidea

with double ~~mentzelia involucreta~~ ~~flower~~ megalaucha

Salvia Columbaria Benth

Oenothera chamaenerioides Gray

49.17	Common, sandy wash	
18	"	"
19	"	"
20	"	"
21	Shaver's Well	4/13 among
22	Hayfields	4/13
23	"	"
24	"	
25	"	great zone
26	"	
27	"	
28	"	
29	"	
30	"	
31	"	erect
32	Eagle mtns	4/10
33	"	sandy wash
34	"	rocky slope
35 ^a	"	Sandy wash
36	Desert Center	
37	"	

Eriogonum
Eriogonum Thomasii Wats
Eriogonum
Olneya tesota Gray

mesquite *Nicotiana attenuata* Torr
Oenothera caespitosa Nutt
Erodium texanum Gray
Erigeron divergens T. & G.
 about edge of "hayfields" *Argemone*
Euphorbia alba marginata Engelm
Hoffmannseggia
Sphaeralcea
Teucrium cubense L.

Nama hispidum Gray
Nama demissum Gray
 4/13 *Isomeris arborea angustata* Parish
Frauseria dumosa Gray
Eschscholtzia minutiflora Wats
~~*Astragalus*~~ *Vaseyi*
Gilia Matthewsii Gray
Achyroxychia Cooperi T. & G.

Base of Eagle Mtns. Anschutz Canyon 4/13

- 4938 Top of high rocky ridge, forming
 39 Rocky walls, ^{growing} 6-8 ft high; common, in
 40 " " & gravel washes, " ,
 41 " " " " " " " al
 42 Sandy washes & hills, "
 43 "
 44 " " rocky hills, common
 45 among rocks
 46 Sandy washes
 47 " " among rocks
 48 base of rocks in wash
 49 occasional along edge of wash
 50 among rocks
 51 " "
 52 on *Hypoxis Emoryi*
 53 common along edge of wash
 54 among rocks
 54a
 55 edge of sandy wash
 56 under shrubs along wash
 57 occasional along sandy wash
 58 occasional large ^{among rocks} clumps along
 59 " along sandy wash
 60 " " " & low

close mats, *Coldenia canescens* subnuda Johnston ^{and}
 chuckawallas & in ^{Asclepias albicans} ~~west of~~ ^{Wats} Hayfields also
 great variation in flower size. *Mentzelia involucrata* var. *megalantha*
 about rocks & under shrubs, *Physalis* ^{crassifolia}
 " " " *Cryptantha*

Hibiscus denudatus Benth

Ditaxis sericophylla (Gray) Heller

Sphaeralcea

Muhlenbergia microsperma Trin

Pteroctegia drymaroides F. m.

Eriogonum fasciculatum var. *flavoviride* M. & J.

Aster tortifolius (T. G.) Gray

Ephedra nevadensis Wats

Puccinia distorta Holway

Philabertia linearis Nuttella Gray

Mentzelia

Viguiera deltoidea Parishii

~~L. Mentzelia~~

Emmenanthe penduliflora Benth

edge of sandy wash *Stillingia linearifolia*

Eriophyllum Wallacii Gray

roots of *Hymenoclea Salsola*) *Aphyllon*

- 4961 Indian Wells springs; sand dunes. 4/14
- 62 "
- 63 "
- 64 "
- 65 "
- 66 "
- 67 "
- 68 "
- 69 "
-
- 70 West of Indian Wells
- 71 Indian Wells
- 72 West of Indian Wells; along the
- 73 " " " " "
- 74 " " " " "
- 75 Mouth of Whitewater Creek
- 76 " " " " "
- 77 " " " " low
- 78 West of Indian Wells; along
- 79 " "
- 80 "
- 81 "
- 82 "
- 83 Mouth of Whitewater Creek
- 84 West of Indian Wells

Oligomeris linearifolia
Streptanthus longirostris Wats
Astragalus lentiginosus Coulteri
Dithyrea californica Harv
Barbarea pauciradiata H. & S.
Achyrocline Cooperi T. & G.
Encelia eriocephala Gray
Abronia villosa Wats

Erodium cicutarium (L.) L'Her

Chaenactis Fremonti Gray

Cryptantha

Whitewater

Gilia

"

Eriogonum inflatum Torr. & F

"

Mentzelia

Populus Fremonti
Wats

~~mesa~~

Oenothera

mesa

Thamnosma montanum T. & G.

the Whitewater

Oenothera

Gilia

Calyptridium monandrum Nutt

Triophyllum Wallacei Gray

Eremocarya micrantha Greene

Dithyrea Calif.

Malacothrix calif DC

4985 grain fields near Beaumont 4/15

86 " " " Moreno, edge of

87 " " " " " "

88 Mxd flat " " " "

89 " " " " " "

90 " " " " " "

91 " " " " " "

92 On mesquite Indian Wells

93 Edge of Hayfields in Chuckawalla
edge of depression, growing with
10-12 ft high and 6 inches thick.

94. Near Indian Wells

95 East of Whitewater Ranch on mesa

96 " " " " " "

97 " " " " " "

98 " " " " " "

99 " " " " " "

5000 " " " " " "

1 " " " " " "

2 " " " " " "

3 " " " " " "

4 " " " " " "

5 " " " " " "

6 " " " " " "

Brassica

San Jacinto Lake; seen for several miles
 " " " Brassica
 " " " *Amsinckia tessellata* Gray
 " " " *Allocarya divergens* Piper
 " " " *Spergularia Clevelandii* G.
Isostemion glabrata Coulteri Gray
Zinnichellia palustris L.
Phoradendron californicum Nutt.

Valley. Thousands of plants about
 virgate, erect habit; some specimens
Holacantha Emoryi.

Oenothera scapoidea Nutt.

among rocks *Pellaea mucronata* Calif.

very low compact bushes *Lotus glabra* (Torr)
 occasional in shrubs of ~~*Antirrhinum Coulteri*~~ *Franseria dumosa* etc.
Lotus bush

Gilia

Eriogonum

Phacelia Parryi Torr

Rhus ovata Wats

Oryzopsis hymenoides Rich.
Cryptantha

5007 East of Whitewater Ranch

8 " " "

9 " " "

10 " " "

11 " " "

5012 Andreas Canyon, Dec. 31, 1921

5013 Chuckawalla mtns April 11.

5014 " " 10

5015 Eagle mtns, Anshutz Canyon, April 13

5016 Chuckawalla mtns " "

5017 " " " "

5018 " " " "

Delaginella Bigelovii Wats
Mirabilis tenuiloba Wats
Stillingia linearifolia Wats

Croton

~~Compositae~~ *Baccharis*

Mamillaria Tetrandia gravel slopes

Cereus Engelmannii, abundant, " "

Mamillaria Alversoni, infrequent, " "

" " " " "

" *Tetrandia* abundant, " "

Opuntia brown-red flowers above Corn Springs

" *Echinocarpa* yellow fls, common, gravel slopes.

Trip with F.W. Pearson, April 28 to Elsinore
 April 29 around south end of Lake Elsinore to
 Reservation and up Temecula River past
 Hemet, camping at Lancaster Valley;

- | | | |
|------|---|----|
| 5019 | wet meadow, 5 mi northwest of | Co |
| 20 | " " " | " |
| 21 | " " " | " |
| 22 | in water " " | " |
| 23 | " " " | " |
| 24 | Temescal Canyon, 2 mi so of Glen Dry; | |
| 25 | " " | " |
| 26 | " " | " |
| 27 | " " | " |
| 28 | " " 5 mi north of " | " |
| 29 | " " | " |
| 30 | " " | " |
| 31 | " " | " |
| 32 | " " | " |
| 33 | " " 2 mi south of " | " |
| 34 | Leach Canyon, 2000 ft, bottom of sand c | |
| 35 | " " " dry sandy soil | |
| 36 | " " 2500, well established | |
| 37 | " " 2000, abundant in moist | |
| 38 | " " 2300 " " | " |
| 39 | " " 2000 " " | " |
| 40 | " " occasional " | " |

were camped at Leach Canyon in Santa Ana mts;
 re to Temecula, then to Temecula Indian

Dripping Spring to Aguanga, back toward
 April 30 to Hemet, San Jacinto, Lakeview,

corona, where Highway crosses Ranunculus calif
 branch of Chino Creek, Erigeron philadelphicus L

" Psoralea orbicularis Lindl

" Ranunculus aquatilis L

" Zanicellia palustris L.

dry, sandy wash Nemadodus longiflorus Gray

" (dry) Gilia

" wet sand Mimulus guttatus DC

" dry Stillingia linearifolia Wats

dry hillside Stipa eminens Cav.

" Microseris linearifolia (DC) Schultze

" Orthocarpus purpurascens Benth

" Platystemon californicus Benth

" Linanthus pariflorus (Benth) Greene

dry canyon Ceanothus

oil Gilia

in rock-crevices on high slope north-facing asplenium Watson
 vesperturnum

in shady places in canyons Thelypteris arguta (Kaulf)

" slopes Sanicula tuberosa Torr

" " " Stellaria intensa Nutt

" " " Meconella verna denticulata

5041	Leach Canyon, 2200 ft.	abundant	in
42	" "	"	di
43	" "	"	mo
44	" "	occasional	"
45	" "	"	"
46	" "	"	"
47	" "	"	ope
48	" "	abundant	lo
49	" 2500	"	di
50	" 2000	"	an
51	3 mi south of Glen Dry, dry heavy soil		
52	" "	"	dry
53	Leach Canyon 2000, common in		los
54	" "	"	"
55	" "	"	"
56	" "	"	"
57	" "	occasional	al
58	" "	common	cr
59	" "	"	"
60	" "	"	"
61	clay about desertating pool where "Lake" is		
62	about 3 mi so. west of Elsinore, v ab		
63	" "	"	"
64	" "	"	"
65	" "	"	"

- moist shaded canyons. *Pteridium aquil* pubes
 dry slopes *Cryptantha*
 moist shaded slopes *Adiantum emarginatum* ^{W.H.}
 " " " *Saxifraga californica* Greene
 " " " *Delphinium decorum* F. & M.
 " " " *Fraxinus dipetala* H. & A.
 open sandy places | seen also in *Ternstroemia* region
 low places in canyons. *Gilia floribunda* Gray
 dry slopes *Ceanothus crassifolius* Torr
 among shrubs (lavender) in lower canyons *Lathyrus*
 on gentle slopes. white fls. *Allium Parryi*
 under oak. *Godetia epilobioides* (Nutt.) Wats
 lower canyons *Solanum Xanti* Gray
 " " dry slopes *Mimulus*
 " " " " (common on hills) *Griodictyon*
 " " " " (det. Hemet & *crassifolius* ^{W.H.}
 dry slopes among rocks *Aquanga* " " *Pellaea muscicola*
 along creek & washes, " " *Ribes* ^{W.H.} *decorum*
 on dry open slopes (" ") *Mimulus brevipes*
 " " " " *Euphorbia polycarpa* Benth
 " " " " *Asclepias californica*
 " " " " *Myosurus minimus*
 " " " " var. *apiculatus* Greene
 " " " " *Veronica peregrina* L.
 " " " " *Juncus effusus* L.
 " " " " *Callitriche*
 " " " " *Psilocarphus globiferus* (Benth.) Nutt

5066	clay mud, etc			
67	"			
68	"			
69	"			
70	"			
71	"			
72	" (with alkali)			
73	" "			
74	"			
75	"			
76	" rare			
77	Grain field near above mud flat			(N)
78	Drier parts of mud flat (alkali)			
79	Field near			
80	Leach Canyon sandy soil, among shrubs			
81	Base of Elsinore Mts, near so. end of Lake Salton			
82	"	"	"	"
83	"	"	"	"
84	"	"	"	"
85	"	"	"	"
86	"	"	"	"
87	Muds flat of 5066.			On small flat
88	" "	"	"	
89	Dry field near	"		

Elatine

Trifolium depauperatum var. *amplectens* (T & G) McDermott
Allocazys

Microseris lindleyi (DC) Gray

Spergularia platensis Fenzl

Marsilia vestita H & G.

Distichlis spicata (L.) Greene

" " "
Spergularia salina f & c Presl

" ~~platensis~~
Tillaea aquatica L.

Platystemon californicus Benth
 (reddish upper half of petals)

Lasthenia glabrata Coulteri Gray

fls dark blue

shrubs, 1800 ft. *Eriophyllum multicaule* (DC) Gray

lake slope, 1600 ft., among rocks *Ellisia chrysanthemifolia* (Benth.) Greene

" " *Pterostegia drymaroides* F. & M.

" " *Dicentra chrysantha* Walp

" " dry slope *Thelypodium*

" " among rocks (white fls) *Solanum Xanti* Gray

" " dry slope *Oenothera lutea* Greene

allatches in clay mud. *Pilularia americana* A. Br.

Baeria

Plagiobothrys

- 5090 Dry field so end of Lake Elsinore
 91 Clay mud flat of 5066, near "
 92 desiccated clay bottom of small lagoon
 93 " " " " "
 94 dry field $\frac{1}{2}$ mi S of Lake Elsinore
 95 Dripping Spring near Temecula
 96 dry hillside at Dripping Spring, gray
 97 " " " " "
 98 " " " " "
 99 dry fine sand " "
 5100 dry hillside " "
 01 " sandy slope " "
 2 " hillside " "
 3 along banks of Temecula Cr r lo
 4 dry slopes, 3 mi west of D
 5 desiccating pool " " "
 6 dry adobe still near v
 7 water along roadside
 8 dry soil, just south of Sedco
 9 surface small lagoon, Lan-ca
 10 in small stream
 11 surface of small " "
 12 under Adenostoma sparsiflora on rye
 13 fine sand in wash at C

4/29

31

and

Baeria
Riccia crystallina -
see letter from J.M. Johnston

near
hol, so end of Lake Elmore

Alloedrya
Cryptantha
Downingia
pilchella
romatium

forming large patch of blue.

rock, sluggish water.

Azolla filiculoides Lam.

very clay

Astragalus didymocarpus H. & A.

"

Gilia

Montia exigua viridis (Davidson)

among shrubs

Collinsia

Oenothera biortata Nutt.

clay, pinkish
~~red~~ fls.

lower slopes; very common

Dripping Spring

Artemisia Nutt.
tridentata
Orthocarpus purpureascens Benth.

Eleocharis palustris R. & S.

~~W. m. t. t.~~ Sedco,

"

Cyperus

Station Temecula Canyon *Malacothrix Coulteri* Gray

-caster Valley *Azolla filiculoides* Lam.

" " *Zinnichellia* ~~palustris~~ *palustris* -

" " *Lemna*

east of Aguanga *Paeonia Brownii* Dougl.

Aguanga *Mentzelia*

- 5114 Fine sand on creek banks at A
 15 dry slopes Aguaanga; abundant
 16 ~~among~~ base of rocks, 5 mi west of Aguaanga
 17^a under shrubs, top of slope ea
 18 " " " " " V
 19 " " Lancaster V
 20 " " " " " V
 21 " " " " " V
 22 important chaparral constituent La
 23 Lakeview, Riverside Co. ab
 24 " " " " " V
 25 Willow-like shrub, 12 ft. high near b
 26 Among rocks
 27 Rock-crevices
 28 Prostrate in " on granite b
 29 Among rocks
 30 dry bank ~~and~~ on b
 31 St. John's Grade, " " V
 32 dry slope on hills south
 33 " " " " " V
 34 " " " " " V
 35 " " " " " V
 36 " " " " " V
 37 " " " " " V

4/29

- 30

- r Aguanga, fls lemon yellow *Astragalus* ^{pomonensis} Jones
 " " " " *Lycium Torreyi* Gray
 " " " " *Cheilanthes Clevelandii* ^{Eaton}
 east of Dripping Spring *Pityrogramma* ^{densiflora} Britt
 " " " " erect *Astragalus*
 Valley *Boulbesia septentrionalis* C. & R.
 " *Hutchinsia procumbens* (L.) ^{Gray}
 " *Sisymbrium incisum* Engelm.
 Lancaster Valley *Adenostoma sparsifolium* ^{Torr}
 alkali ^{land} flat along San Jacinto River *Microseris* ^{hurdii?}
 " " " *Monolepis Nuttallii* ^{Greene}
 base of Hemet Butte *Atriplex*
 " " " *Scrophularia californica* Cham.
 " " " *Notholaena Newberryi* Eaton
 boulders ^{Expos.} south of St. John's grade Lotus
 " near Tuscalota Creek *Cheilanthes Clevelandii* ^{Eaton}
 hills near Tuscalota " "
 " north of " " *Ceanothus tomentosus* ^{Parr}
 of Tuscalota Creek *Ceanothus* ^{cuneatus} Nutt.
 " " *Plagiobothrys*
 " " *Gilia dianthoides* ^{var. parviflora} Endl.
 " " *Mimulus diffusus* Grant
 " " *Athyrium pusillus* (Hook.) ^{Green}
 " " *Loeflingia squarrosa* Nutt.

- 5138 Wet meadow, Tuscaloosa
 39 " "
 40 Wet banks of a small pond
 41 dry slope, Aguanga. This
 from Dripping spring to Aguanga
 & mesquite, it suggests
-

- 5142 As ^{a weed} ~~an escape~~. Claremont
 43 on grassy slope, west end of
 44 " " east " "
 45 Claremont, vacant lot on
 46 " wash ^{1 mi.} east of
 47 " "
 48 Victorville, abundant on

L

Creek

hemna

Ranunculus Cymbalaria

near Hemet Butte

Riccia crystallina L

yucca is very common
 & north, with Simmondsia
 desert slopes

Yucca mohavensis Barg

April 15, 1922

Bromus

Indian Hill, Claremont

4/15/22 Plagiobothrys

" "

"

Pentachaeta aurea

College Ave

Amsinckia parviflora

Columbia

Salvia mellifera (Greene)

Ellisia chrysanthemifolia

open desert, among Larrea, etc.

Phacelia

5149 Head of Jackrabbits Trail
shaded Chaparral slope

50

L.I.

"

San Jacinto Lake foot of Jackrabbits

51 *Spergularia Clevelandii* - Soft
grasses

52 *Monolepis Nuttalliana*

53 *Lepidium* - "

54 *Marsilea vestita* H. & A

55 *Veronica peregrina* L.

56 *Petunia parviflora* (Lam.) Juss.

57 *Zanichellia palustris* L.

57a *Potamogeton*

58 *Allocarya divergens* Piper
on soft gr

59 *Allocarya divergens* Piper
dessicated pool

60 *Juncus bufonius* L. " "

5/5/22

Fraxinus dipetala H. & A.*Quercus dumosa* Nutt

Trail
ground around lake bed

" " " "

" " " "

" " " "

" " " "

" " " "

water v on wet mud.

ground around lake bed.

$\frac{1}{2}$ mi north of Marsh Field

" " " "

- 5161 *Juncus sphaerocarpus* Nees desiccated no
- 62 *Myosurus minimus* Greene
var *apertus* "
- 63 *Callitriche marginata* Torr
- 64 Ridge above Covington's R
- 65 " " "
- 66 " " "
- 67 Dry Morongo Wash
- 68 " " "
- 69 " " "
- 70 " " "
- 71 " " "
- 72 San Geronimo Pass, a

hills, $\frac{1}{2}$ mi north of March Field

" " " " "

Ranch, dry hills *Gilia aurea* Nutt

" " " *Nemacladus*

" " " *Phoradendron densum* Torr
or *juniperus*

sandy wash *Parosela californica* Vail

" " *Eriogonum*

" " *Gilia virgata* var *floccosa* (Gray)

" " *Salvia apiana* Jeps

dry banks

above white water common

Acanthopappus sphaerocephalus
Gray

5/6

5173	Dry Morongo Wash	
74	Warrens Well	
75	3 mi east of Warrens	
76	"	"
77	"	"
78	"	"
79	"	"
80	"	"
81	"	"
82	"	
83	"	
84	"	

sandy soil *Cryptantha*

Astragalus lentiginosus var ^{Fremonti}

Well. *Chorizanthe*

" *Cryptantha nevadensis* ^{Nels & Ken}
(= *barbig. inops*)

" *Eriophyllum Wallacii* Gray

" *Eriophyllum Pringlei* Gray

" *Arabis glaucovalvula* M.E. Jones

" *Thysanocarpus laciniatus* Nutt

" *Nicolletia occidentalis* Gray

Chaenactis stevioides H & A

Gilia Matthaei Gray

- 5185 3 mi east of Warrens
- 86 "
- 87 "
- 88 2 mi west of Warrens
- 89 "
- 90 "
- 91 3 mi east of Warrens
- 92 2 mi west, flat
- 93 " , hillside
- 94 Covington's Ranch
- 95 " " , sandy
- 96 Dry Morongo Wash

Anisocoma acaulis Gray

Gilia aurea Nutt

Eriogonum

Well, flat ^{*Malvastrum exile* Gray}
~~*depressum*~~

Sisymbrium

open plain

Nemacladus

Oenothera albicaulis Pursh

Stenotus linearifolius interior (Cor.)
Hall

Wash

Pentstemon centranthifolius ^{Pursh}

Astragalus ^{*tricarinatus*}
Gray

- | | | |
|-------------|-----------------------|---------|
| 5197 | 3 mi east of Warren's | |
| 98 | " | " |
| 99 | " | " |
| 5200 a
b | " | " |
| 01 | " | " |
| 02 | Coyote Holes, | wet |
| 03 | " | under |
| 04 | " | dry |
| 05
05a | " | rock |
| 06 | " | along |
| 07 | " | , among |
| 08 | 3 mi east of Warren's | |

5/6

45

- Well *Zygadenus brevibracteatus* ^{Hall}
- Lomatium mohavense* C. & R.
- " *Coleogyne ramosissima* Torr
- " *Lycium Andersonii* Gray
" *Cooperi* "
- "
- ground *Minimus* ^(white tinged with pink) *Parishii* Greene
- rocks *Notholaena Parryi* Eaton
- Calochortus Kennedyi* Porter
- crevices *Buckellia arguta* Robinson
- Stillingia linearifolia* Wats
- wash & among rocks *Eriogonum fasciculatum*
var. *flavovirens* M. & J.
- rocks *Galium*
- Well *Cassia armata*

- 5209 Locally common on high
Quail Sprgs.
10. Abundant in sandy washes
- 11 Sandy wash
- 12 About rocks, high hillside
- 13 Sandy wash
- 14 talus, loose gravelly
14a " " "
- 15 ~~wet sandy wash~~
- 16 ~~sandy banks along wet~~
- 17 " " " "
- 18 rocky, gravelly slopes
- 19 " " under rock
- 20 " slopes

Hulsea vestita var *callicarpa*
sunny bench above (Wats) Hall

hwy. Quail eggs

Smith Water Canyon

"

"

Physalis

"

"

~~*Caulanthus*~~ *Hallii*
~~*Streptanthus*~~ Pays

slope

Purshia glandulosa

Arabis nardina Greene

————— "

Ceanothus crassifolius

————— →

Minulus Parishii Greene

wash

"

Grayia spinosa Wats
(Hook) May

"

Minulus rubellus Gray

Arabis

pinon belt

Pityrogramma triangularis
maxoni

Astragalus

Δ fide

Astragalus bernardinus Jones

- 5221 High slopes, base of pinyon
- 22 Rocky slope, common
- 23 Wet sandy wash, Smith
- 24 " " "
- 25 Dry rocky slope
- 26 " " " , under
- 27 Wet sandy wash,
- 28 " " " ✓
- 29 Dry rocky slope.
- 30 benches on dry slope
- 31 Common on rocky slopes
- 32 Infrequent on " "
Eriogonum saxatile Wats

belt.

Astragalus coccineus Brand*Cryptantha*

Water Canyon

Oenothera

"

Pellaea mucronata

lie

Mentzelia

occasional

Malacothrix

under trees on slopes

Montia exigua
*viridis**Pectocarya setosa*quail spgs & vicinity *Astragalus*
and along washes *Eriogonum fasciculatum*
var. *flavoviride* M. & J.

in piñon belt, along Smith Water Canyon

- 5233 Under trees on north facing
- 34 " " v bushes " "
- 35 Dry rocky slopes; common
- 36 " " " "
37. Common under rocks
38. Abundant on open rocky
- 39 " " " "
- 40 Occasional along stream
- 41 " " " "
- 42 One plant in wash
- 43 Wash near Quail
- 44 ^{Parrisi Water}
Nolina W. J. Gilman
- 45 *Pholisma arenarium* Nutt

slope, piñon belt *Ellisia*

" " " *Thelypodium*

in piñon belt; Quail Spgs. *Salvia mohavensis*
Greene

on shaded slope *Montia perfoliata*

of piñon belt, Quail Spgs. *Cheilanthus Covillei* Maxm

slopes *Allium fimbriatum* Wats

" *Pentstemon antirrhinoides*
var. *microphyllus*

of Smith Water Canyon *Rhamnus crocea*
ilicifolia

" *Salix lasiolepis* Benth.

" *Cercocarpus* "

Spgs *Mimulus longiflorus* var. P.

rocky slope Quail Spgs.
" " "

- 5246 Rust in Arabis
47. Salvia W. F. Gilman
- ~~48~~
- 48 Potentilla acuminata, Hall
- 49 Base of rocks
- 50 n
- 51 among grass
- 52 Keyes Ranch, common
- 53 a n
- 54 Shade of shrubs, along
- 55 Open sandy wash,
- 56 Wash Keyes Ranch 10-12
~~Forestura~~ neo-mexicana Gray
- 57 Base of hills, along wash

Puccinia Holboellii

Ridge Quail sps.

Rock-crevices, 2 mi. w. of Keyes Ranch

5/7

sandy plain

"

Lotus
rigidus
(Bunt)

"

"

"

Arabis glaucovalvula M & Jones

"

"

"

along wash

Amsonia tomentosa Torr

"

"

Amsonia brevifolia Gray

wash, Keyes Ranch *Phacelia*

"

Oenothera campestris
var. *Parishii* Abrams

ft high, large branching shrubs

Keyes Ranch *Clematis pauciflora* Nutt

5258 Common about rocks - alone

59. " " " "

60 Sandy benches among rocks

61 Common along sandy wash

62 Silty bench among rocks

63 " " " "

64 Sandy plain, 2 mi west

65 " " " "

66 Rocky hillside, Quail Sprs

67 " " "

68 " " "

69 Sandy plain near Keyes

low wash.	Keyes Ranch	<i>Pluchea trilobata</i> Nutt
"	"	<i>Quercus</i> ^{Alvordiana} _{Eastw}
"	"	<i>Cryptantha</i>
"	"	<i>Stanleya pinnata</i> (Pursh) Britton
"	"	<i>Phacelia</i> ^{Torr} _{overiana}
"	"	<i>Allium</i>
"	"	<i>Microseris</i>
"	"	<i>Castilleja</i>
base of Pinon belt		<i>Purshia glandulosa</i> _{Curran}
"	"	<i>Pinus cembroides</i> var. <i>monophylla</i> (T. & G.)
"	"	<i>Juniperus</i> calif. Carr
Ranch		

- 5270 along small stream, Keyes Ranch
- 71 sandy plain, Keyes Ranch
- 72 " " " "
- 73 " wash below Quail sp
- 74 " " " "
- 75 " " " "
- 76 " " " "
- 77 " " " "
- 78 " " " "
- 79 few trees along ~~stream~~ stream
- 80 washes & rocky slopes
- 81 sandy wash, Quail & prairie

5/7

Salix ^{*laevigata* Bebb.}
~~*exigua* Nutt~~

Astragalus *Vaseyi*

Astragalus
lestiginosus var

Spring

Malacothrix *calif* DC

Baileya *multiradiata* ^{*plumieri*}

Gilia *aurea* Nutt

common, growing with the species *Eriogonum* *nodosum*
var. *Jaegeri*

Oenothera

~~*Aptenodes*~~ ^{*Pholisma* Nutt}
arenarium

Keyes Ranch

Fraxinus *velutina* var
coriacea (Wats) Rehd

"

"

Tetradymia *spinosa* H & A

Chaenactis

Chaenactis *Xantiana*
Gray

- 5282 *Panicum Cymbalaria* Pursh wet springy
- 83 *Hydrocotyle umbellata* L " "
- 84 *Eriogonum saxatile* Wats. dry canyon
- 85 *Salvia vaseyi* (Porter) " "
- 86 *Ephedra calif.* Wats. dry rocky
- 87 *Targionia hypophylla* L. shelter under rocks
- 88 *Fumaria hyzomatris* wall of ravine
- 89 *Yucca brevifolia* Engelm. Bet. Keyes
- 90 " *mohavensis* Gray Coyote Holes
- 91 *Echinocactus cylindraceus* Engelm. Keyes
- 91a *Erigeron* " "
- 92 " " " "
- 93 " " " "
- 94 " *polycephalus* Coyote

5/7

meadow

Covington Ranch

Ranunculus cymbalaria

a

"

wall

Dry Morongo Wash

f

Mouth of v

"

"

Mesa, bet. Whitewater v. Mission Creeks

juniper belt, Quail Springs

voin

"

"

Ranch v. quail springs

Ranch

Rocky slope (18 ribs)

May 7

"

"

"

(18 ribs)

"

"

"

(24 ribs)

Holes

rocky ledge

- 5295 *Echinocactus cylindraceus* Engelm.
Plants in great numbers
- 96 *Opuntia ramosissima* Engelm.
and Keyes Ranch.
- 97 " *ramosissima* Engelm.
- 98 *Cereus mohavensis* Engelm. Common
~~3 carles~~
Fls. ~~Dull Vermillion~~ tinged with nopal red.
- 99 *Opuntia chlorotica* E. & B.
- 5300 " *ursina* Weber.
- 01 *Tylostoma campitru* Morgan
- 02 *Podarion Farlowii* Marsee
- 03 *Fungus Galera*
- 4 *Polyporus Munzii* n. sp. Lloyd

Rocky mesa, near Mission Creek.
 this one 6 ft high & with 28 ribs
 Sandy plain, between Quail Springs

Sandy ^{slope} ~~plain~~, near Warrens Well.

Sandy plains and rocky slopes, Quail Springs
 to Keyes Ranch.

One plant in stream bed, Smith Water Canyon
 near Quail Springs.

Stream bed, Smith Water Canyon

Sandy plain, between Quail Springs & Keyes Ranch
 May 7.

Chuckawalla Mtns. Corn Spgs 4/10/22

Mouth of Andreas Canyon, near Palm Springs

Dec. 31, 1921. sandy desert soil

Corn Springs, Chuckawalla Mtns 1500 ft

or Salix

4/11/22

62

Mumy + Johnston

Santa Ana River Canyon

(Trip with Johnston + F. W. Pearson. Santa Ana River Valley. Perris. San Jacinto Canyon. Flats 5/20. dry)

5305

Pellaea mucronata

5

5306

Allium shaded slopes

5307

Helianthemum scoparium Nutt

08

Pentachaeta aurea Nutt

9

Ribes speciosum Pursh

10

" indecorum Eastw.

11

Ceanothus tomentosus Parry

12

Echinocypsis macrocarpa Greene

13

Anthoceros Pearsoni Howe

14

Gypsophila Parryi

15

Nolina

16

Eriodictyon crassifolium Benth

May 18.

63

3 mi below county line

~~Ana Canyon Elsinore Murietta 5/18.~~

~~Thomas Valley to 2 mi below Hemworth 5/19~~

~~Returned via San Jacinto & Gilman Hot Springs~~

5/21

on canyon

along dry banks in lower canyon

abundant dry hillsides

" upper canyons, alluvial soil

" " "

" " "

upper canyon lone beaked fruit
moist shaded bank in canyon

" " " "

abundant on dry hillsides

abundant in great patches of
lower canyon bed

May 18

- 5317 *Cryptantha intermedia* (Gray) Greene
 18 *Chorizanthe fimbriata* fimbriata
 var. *laciniata* (Torrey) Jeps
 19 *Phalaris Lemmonii* Vasey
 20 *Nemacladus* —
 21 *Hemizonia pedunculata* (H. & A.) T. & G.
 22 *Hordeum nodosum* Nutt
 23 *Eleocharis palustris* R. & S.
 24 *Juncus balticus* 
 25 ~~*Callitriche*~~ ^{*Callitriche*} *Callitriche*
 26. *Cressa truxillensis* HBK.
 27 *Rhus ovata* Wats
 28 *Scirpus* —
 29 *Solanum Douglasii* Dunal

3 mi east of Murietta
 exceedingly common on hills
 common on hills, 3 mi east of Murietta

dessicated mud flat, 3 mi
 so west of Elsinore

dry hills, 3 mi east of Murietta
 abundant in cleared field

dessicated mud flat, about edges,
 3 mi. south of Elsinore

moist flat, 3 mi south of Glen Dry

mud flat 3 mi south of Elsinore

" 3 mi so of Glen Dry

" " " Elsinore

"

"

"

wash " " Glen Dry

moist flat " " "

wash

"

- 5330 *Orobanché tuberosa* (Gray) Heller
fasciculata
on *Adenostoma*
- 31 *Vicia exigua* Nutt near small stream
- 32 *Euphorbia albomarginata* T. & G. in clear spaces
- 33 *Godetia viminea* Spach near small
- 34 *Chickenthes calif.* (Nutt) Mett in chaparral
- 35 *Apiastrum angustifolium* Nutt "
- 35a *Harpagonella Palmeri* Gray "
- 36 *Linum micranthum* Gray "
- 37 *Helmizoxia tenella* Gray "
- 38 *Cryptantha microstachys* Greene
- 39 *Scutellaria tuberosa* Benth "
- 40 *Gargophyllum* "
- 41 *Pterostegia drymarioides* F. M. burned over
- 42 *Tillaea minima* Mess. "

5 mi no-east of Muirietta

5/19

"

"

in chaparral "

"

stream

"

"

"

"

" " "

"

5 mi "

"

" "

"

"

"

"

"

"

"

"

"

area in chaparral, 5 mi from Muirietta

"

"

- 5343 *Emmenanthe penduliflora* ^{Benth} Burned over a
- 44 *Phacelia Fremontii* Torr "
- 45 *Eriophyllum* ^{multicaule} (DC) Gray "
- 46 *Cryptantha* — "
- 47 *Malacothrix Clevelandii* Gray
- 48 *Eriogonum Thurberi* Torr
- 49 *Baeria aristata* (Nutt.) Hall
- 50 *Gilia multicaulis* Benth.
- 51 *Mirabilis californica* Gray
- 52 *Antirrhinum Nuttallianum* ^{Benth}
- 53 *Chaenactis artemisiaefolia* Gray
- 54 *Oenothera biortata* Nutt.

5/19

69

area in chaparral, 5 mi no-east of Marietta

u 7 u u

a a u h

v u i u

u u e 7

a u u u

u u u u

u u u u

u u u u

u u u u

v v 7

u u u

5/19

- 5355 ~~Caulanthus~~ *heterophyllus* (Nutt)
~~Polypodium~~ —
- 56 *Phacelia minor* var *whitlavia*
(Gray) Macbride
- 57 *Silene antirrhina* L.
- 58 *Erigeron linifolius* Willd.
- 59 *Chorizanthe* *Parrisi* Wats.
- 60 *Nemacladus* —
- 61 *Gilia dianthoides* Benth.
- 62 *Finaria hypnometica*
- 63 *Eriogonum californicum* Nutt
- 64 *Lastarriaea chilensis* Remy
- 65 *Calyptridium monandrum* Nutt
- 66 *Mimulus brevipes* Benth
- 67 *Salvia columbariana* Benth

Payon in

Burned over area 5 mi no-east Murietta

u u u u

u u u u

u u u u

u u u

u

u

chaparral 3 mi

burn 5

u

u

u

u

- 5368 *Boisduvalia* glabella (Nutt.) Walp.
- 69 *Allocharya* ~~stipitata~~ ^{Pur} *micrantha*
divergens P. pur
- 70 *Navarrelia* —
- 71 *Gnaphalium* palustre Nutt.
- 72 *Uromyces*
~~promethus~~ I Rust on Euphorbia
- 73 *Sanicula* laciniata H & A
- 74 *Phalaris* Lemmonii Vasey
- 75 *Oreotheca* californica Vasey
- 76 *Allopecurus* californicus "
- 77 *Deschampsia* gracilis Vasey
- 78 *Mimulus* latidens (Gray) Greene
- 79 *Myosurus* minimus L.
var. *apus* Greene

Menifee Valley May 19

Valp

Dessicating mud-flat, 10 mi. no-east Murietta

per
the

"

"

"

"

near

"

"

covering area of about an acre in
dessicating mud flat, 10 mi no-east of Murietta

"

"

"

"

occasional "

"

abundant "

"

- 5380 *Downingia fulchella* (Hindl.) Torr.
- 81 *Phalaris minor* Retz
- 82 *Lolium temulentum* L.
var. *arvense* Bab.
- 83 " *temulentum* L. var. *arvense*
- 84 *Lupinus*
- 85 *Trifolium gracilentum* T. & G.
- 86 *Cystopteris fragilis* (L.) Bernh.
- 87 *Tellina* —
- 88 *Fragaria californica* C. & G.
- 89 *Plectritis macrocera* T. & G.
- 90 *Pentachaeta aurea* Nutt.
- 91 *Thelypeltis arguta* (Kaulf.) Moxley

May 19,

rare

10 mi from Murietta

Small draw in field 8 m "

" " 8 m "

" " "

" " "

" " "

shaded moist ridge 3 mi from Keenes ^{5000'}
San Jacinto Mts

"

springy place on " " "

moist bank " " "

" " ; fls very deep yellow

" " on ridge, 3 mi from Keenes

- 5392 *Polystichum* *minutum* (Kaulf.) Presl
- 93 *Hulsea* *vestita callicarpa* (Wats.) Hall
- 94 *Montia* *exigua* var. *viridis* (Davidson) Y. & P.
- 95 *Ribes* *Poezlii* (Regel)
- 96 *Luzula* *campestris* DC
- 97 *Lathyrus* *laetiflorus* Greene
- 98 *Lotus* —
- 99 *Quercus* —
- 5400 *Cheilanthes* *Covillei* Maxon
- 01 *Ceanothus* *divaricatus* Nutt
- 02 *Lupinus*
- 3 *Lotus* *grandiflorus* (Benth.)

about rocks, under ridge above Keen
pines camp

" "

" "

moist slope

" " Springy place

San Jacinto Canyon 4500 ft

Mouth of Strawberry Creek 4000
about rocks

" "

" "

Mo. Strawberry Creek

1 mi above " "

" "

- 5404 *Carex* ~~Alma~~ Bailey
- 5 *Chaenactis* *atensis* *ae* *folia* Gray
- 6 *Dendromecon* *rigida* Benth
- 7 *Lupinus* *Hallii*
- 8 *Pellaea* *mucronata* D.C. Eaton
- 9 Mosses *Weisia* *viridula*
- 10 *Cuscuta* —
- 11 *Calochortus* *splendens* Dougl
- 12 *Brodiaea* *filifolia* Wats
- 13 *Salicornia* *subterminalis* Parish
"type locality"
- 14 Mosses *Hebwigia* *albicans*

5/19

long small stream, 1 mi above
mo of Strawberry -

1/4 mi above ~~mo~~ Strawberry

Mo Strawberry Creek, ^{near} canyon bed

above Oak Cliff, canyon wall

Mo Strawberry ^{abundant}, among rocks

along small stream 1 mi above Strawberry

on Cressa Frankenia, Dondia

1 mi west of Hemet

mo San Jacinto Canyon

1 mi east of Perris

heavy soil about alkaline area

"

"

Ridge near Keenes, on rocks

- 5415 *Hulsea vestita* var. *callicarpa*
(Wats) Hall
- 16 *Plagiobothrys* *uvosinus* Gray
- 17 " —
- 18 *Anisocoma* *acaulis* Gray
- 19 *Layia* *platyglossa* (F. & M.) Gray
- 20 *Baccharis* *chrysostoma* *gracilis*
- 21 *Eremocarya* *lepida* (Gray) Greene
- 22 *Pectocarya* *penicillata* (H. & A.)
DC
- 23 *Rumex* *acetosella* L
- 24 *Thysanocarpus* *curvipes* Hook
- 25 *Plagiobothrys* —
- 26 *Nemophila* *Munzianii* H. & A.

Hemet Valley = Thomas
Valley

81

abundant
Hemet Valley, sandy wash 5/19
1 mi above Thomas Ranch

partial shade of *Pinus ponderosa*
near springy place in Hemet Valley

sandy wash abundant thruout Thomas
Valley

forming great fields of bright yellow
in meadows (very deep yellow)
abundant in edges of meadow

small sandy wash & gravelly banks
ridge above Keen's

wash " Keen Camp

"

"

under shrubs on slopes above Keen Camp

- 5427 *Lupinus densiflorus* Benth
- 28 *Sidalcea malvaeflora* Gray
- 29 *Hydrocotyle ranunculoides* L. mudf
- 30 *Limosella aquatica* L
- 31 *Ranunculus aquatilis* L
- 32 *Zanichellia palustris* L
- 33 *Collinsia concolor*
- 34 *Gilia multicaulis* Benth
- 35 *Cheilanthes Covillei* Maxon
- 35a *Pellaea mucronata*
- 36 *Galium andrewsii* Gray
- 37 *Lemna* —
- 38 *Montia fontana* L.

5/19

grassy slopes, Keen Camp Hemet Valley

wet meadow, Thomas Valley

small pools, ~~3/4 mi below Kenworthy~~
1 mi above Thomas Ranch

"

"

"

"

"

"

among shrubs on fairly dry slope, 1 mi " "

"

"

common about rocks

"

common under shrubs 1 mi from Thomas Ranch

small pool

"

"

small pool

- 5439 *Selaginella Bigelovii* Wats
- 40 *Pectorarya setosa*
- 41 *Sidalcea malvaeflora* Gray
- 41 a *Athyrium pusillum* (Hook) Greene
- 42 *Sisyrinchium bellum* Wats
- 43 *Gilia dianthoides* Endl.
- 44 *Oreocarpus purpurascens* Benth
- 45 *Penstemon*
- 46 *Marsilea vestita* H. & G.
- 47 *Ceanothus Greggii* Gray
- 48 " *cuneatus* (Hook) Nutt
- 49 ~~*Samolus*~~ *Carduus*
Drummondii acedilensis Gray
- 50 *Phlox austroripariana* Coville

5/19

about rocks on slope, 1 mi above Thomas Ranch

"

"

Wet meadows

"

"

"

"

"

"

8

"

dry rocky hillside

2 mi below Kenworthy

5/20

"

dry rocky hillsides
 low shrub, less than foot near "

5/20

pond

2 mi below "

5/20

"

common dry hillsides

common

dry hillside
 + along washes

Keen Camp

wet meadow

1 mi above Thomas Ranch

rocky slope under pines

2 mi below Kenworthy

- 5451 *Trifolium gracilentum* T.G.
52 *Baccharis chrysothoma* var
gracilis (DC) Hall
53 *Layia platyglossa* (Forn.) Gray
54, *Driedophyllum Parishii* C. R.
55 *Equisetum Funstoni* A.C.
~~56~~
56 *Microseris linearifolia* (DC) Schultz
prostrata
57 *Platystigma californicus*
var. *cristatus* Greene
58 - *Chara*
- 59 *Callitriche*
60 *Elatine californica* Gray
61 *Myosurus minimus* L.
62 *Ranunculus californicus*
var. *ludovicianus* (Greene)
Davis

5/20

87

about rocks

Kennworthy

alluvial
low flats Hemet Valley

5/20

meadows 2 mi below
near Kennworthy

gravelly bench under pines near "

alluvial soil 1 mi below "

mouth of Pipe Creek

" "

sandy flats

" "

pool

at

"

"

"

"

"

"

"

"

"

"

wet meadow 1 1/2 mi below Kennworthy

- 5463 *Trifolium albovirgatum* T. & G.
- 64 *Pityrogramma triangularis* (Kauf.)
- 65 *Mulla serotina* Greene
- 66 *Oenothera micrantha* Hornem.
- 67 *Mimulus diffusus* Grant
- 68 *Troximon plebeium* Greene
- 69 *Erigeron divergens*? T. & G.
- 70 *Linum Lewisii* Pursh
- 71 *Viola pinetorum* Greene
- 72 *Oleochanis acicularis* R. & S.
- 73 *Juncus triflorus uniflorus* Engelm. ? wet
- 74 *Pentstemon aurea* Nutt

5/20

rocky slope

Kenworthy

about rocks mouth Pipe Creek

dry ~~meadows~~ ~~slope~~

about pond, Kenworthy

dry slope

"

wet

sandy along stream

"

dry slope

1 1/2 mi below

"

rocky "

"

"

trace " "

"

"

" " " under pines

"

about pond

at Kenworthy

wet

sand along stream

near

"

under pines

Kenworthy

- 5475 *Eremocarya* *lepidota* (Gray) Greene
- 76 *Mimulus* *Suksdorfii* Gray
- 77 *Gilia* *leptantha* Gray covers
- 78 *Zanichellia* *palustris* L.
- 79 *Troximon* *heterophyllum* ^{Greene}
f. *normale* (Piper) Hall
- 80 *Bromus*
- 81 *Aphyllon* *fasciculatum* Gray
- 82 *Equisetum* *Funstoni*
- 83 " *Funstoni*
- 84 *Gilia* *arenaria* Benth
- 85 *Arabis* *nardina* Greene
- 86 Moss *Funaria* *hygrometrica*

5/20

Thomas Valley

dry gravel wash above Kenworthy

wet sand along ^{stream} Kenworthy

miles of sandy flats "

pool "

sandy

dry soil "

1 mi below "

sandy bank along stream, 1 mi below Kenworthy

edge of Chara pond at Kenworthy

gravel 2 mi below "

rocky slopes Kenworthy

moist depression "

- 5487 *Fraxinus coriacea* Wats.
- 88 *Amelanchier alnifolia* Nutt.
- 89 *Berberis californica* Jepson
- 90 *Arctostaphylos* ^{Parr.} *Pringlei drupacea* see
- 91 " ^{HBK} *pungens*
- 92 *Pinus cembroides* var. *quadrifolia* (Parr.)
- 93 *Arabis* ~~*peruviana*~~
- 94 *Purshia glandulosa* Curran
- 95 *Oxytheca emarginata* Hall
- 96 *Eriogonum molestum* Wats.
- 97 *Pectocarya setosa*
- 98 *Mimulus brevipes* Benth.

5/20

Mo. of Pipe Creek

dry slopes below Kenworthy

base " " near "

~~Hemet Valley~~~~pass at head of Vandeventer Slap~~

" " "

" " "

dry slopes below Kenworthy

" " "

sunny rocky slope, 2 mi below "

" " "

" " "

" " "

- 5499 *Lupinus* Gray
- 5500 *Melica imperfecta* Trin
- 01 *Lomatium mohavense* C & R
- 2 *Cryptantha muricata* —
- 3 *Nemacladus* —
- 4 *Hymenopappus lugens* Greene
- 5 *Poa longiligula* Scribn.
v Williams
- 6 *Festuca microstachys* Nutt
- 7 " *reflexa* Buckl
- 8 *Oxytheca trilobata* Gray
- 9 *Poa longiligula* Scribn. Wms
- 10 *Lupinus*

5/21

rocky slopes 2 mi below Kenworthy

base of u a (shade) c a

u a c u

u a h u

a u u u

u u u

u u u

u u a

a u u

sandy wash u 1

common on rocky slope u

rocky slope -u

- 5511 *Foriestiera neomexicana* Gray
- 12 *Alburn obtusum* Lemmon
- 13 *Quercus Palmeri* Engelm.
- ~~14~~ 14 *Plagiobothrys ursinus* —
- 15 *Equisetum Funstoni* A.C.E.
- 16 *Calyptridium Parryi* Gray
- 17 *Euphorbia Palmeri* Engelm.
- 18 *Salix lasiolepis* Benth.
- 19 Moss *Tortula Müllerii* (B+S)
- 20 *Elatine californica* Gray
- 21 *Montia fontana* L.

5/21

along stream in small canyon 2 mi below
Kenworthy

locally abundant on rocky slope
2 mi below "

common as fringe along edges of
valley from Vandeventer Pass to 2 mi
below Kenworthy. collected at ^{head} of Hemet V.
~~Vandeventer Flats.~~

about pines $\frac{1}{2}$ mi above Keen Canyon

moist sandy bank "

dry ~~sandy~~ " "

rocky slope "

along small stream - 1 mi from Hemet
Reservoir

cushions at base of *Quercus Kelloggii*
 $\frac{1}{2}$ mi from Keen Canyon
about pool at Thomas Ranch

on sedge clumps, about pools

- 5522 *Ranunculus aquatilis* L.
- 23 *Potamogeton pectinatus* L.
- 24 *Zannichellia palustris* L.
- 25 *Abronia villosa* Wats
- 26 *Trifolium Wornscholdii* Lehm
- 27 *Plagiobothrys tenella*
- 28 *Athyrium pusillus* (Hook.) Greene
- 29 *Mimulus nasutus* Greene
- 30 *Gilia giloides* (Pursh) Greene
- 31 *Thysanocarpus curvipes* Hook
- 32 *Collinsia concolor*
- 33 *Eriophyllum Wallacei*
Gray

5/21

Small pools

Garner Ranch

u

L

a

u

sandy washes

u

margin of pool

S

moist shade of overhanging rock, 2 mi above Thomas Ranch

L

I

b

r

s

r

h

r

r

r

u

u

disintegrated granite 2 mi above Thomas Ranch

- 5534 *Drymocallis Wrangeliana*
(7 & 4) Rydb.
- 35 *Mimulus serotina* Greene
- 36 *Chenopodium calif* Wats.
- 37 *Oxytheca trilobata* Gray
- 38 *Pentstemon centranthifolius* Benth.
- 39 *Dischampsia*
- 40 ~~554~~ *Stipa californica* Merr. & Davis
- 41 Composite
- 42 *Boissieria globella* (Nutt.) Walp.
- 43 *Cressa trussilensis* H.B.K.
- 44 *Abruplex* —
- 45 *Astragalus* —
- 46 *Elatine californica* Gray

5/21

101

along small canyon stream, 2 mi above
Thomas Ranch
dry banks

"

"

edges of chaparral, warm slopes 2 mi above T.R.
common on slopes

edge of pool

3 mi

"

dry slopes

"

forming broad zone about San Jacinto ^{Lake}

1500 ft

dry mud flat

"

"

"

"

"

"

"

"

"

- 5547 *Stillingia linearifolia* Wats
- 48 *Philabrella Hartwegii*
var. *heterophylla* (Engelm.) Vail
- 49 grass
- 50 *Muhlenbergia microsperma* Trin
- 51 *Notholaena californica* Eaton
-
52. *Catastoma uplandii* Lloyd
- 53 *Philorina iniquianus* Burk
- 54 *Battara Stephensii* Fr
- 55 *Montagnites Candollea* Fr
-

5/21

4 mi north-east of San Jacinto, along base of dry hills 1500 ft

u

4

i

"

u

u

"

"

u

"

5/21

Thomas Valley

Crittts P.O. J. M. Johnston May 13.

Copper City

u

"

Crittts P.O.

u

"

Red Hill near Highland

- 5556 *Centunculus minimus* L.
- 57 *Elatine californica* Gray
- 58 *Lotus* —
- 59 *Lupinus densiflorus* Branth
- 60 *Nicotiana Bigelovii* Wats
- 61 *Brassica nigra* (L.) Koch
- 62 *Brodiaea coronaria*? Jeps
- 63 *Humaria hygrometrica*
- 64 *Deschampsia gracilis* Vasey
- 65 *Ribes gracillimum*
Cov. v Britton

P.A. Mung May 22

dessicating pool, heavy soil

4

dry heavy soil on mesa

4

4

light sandy soil west of Red Hill

common weed in valley west of 4

occasional on heavy soil mesa

sandy low place, west of Red Hill

dry pools on mesa

wash west of Red Hill

5566

Cupressus Forbesii Jepson

alluvial soil on canyon bottom
 associated with live oak. Large trees
 mile and half; but fire of
 killed most of trees in upper
 dead trees still standing ✓
 (many about 5 yrs old ✓
 numbers, somewhat shade

Largest tree seen between
 peaked. Branched near
 certainly not pendulous.

Color juniper-green, but
 wood very brittle, splits
 Bark ^{smooth} cinnamon brown,
 Fruit abundant

Munz & Johnston.

Santa Ana Mtns, 2^d large canyon
 south of Orange County line May 18, 1922
 Santa Ana River Canyon.

and in upper parts of canyon,
^{formerly} Common along canyon for
~~about six~~ several years ago
 narrower parts of canyon, old
 holding cones. Seedlings
 5 or 6 ft. high) in great
 tolerant.

30 x 40 ft; crown usually conic
 base, branches ascending.
 Trees almost as broad as high ($\frac{2}{3}$ - $\frac{3}{4}$)
 not glaucous,
 readily.
 exfoliates in thin plates.

m + j.

- 5567 *Pilularia americana* A. Br
- 68 *Pellaea mucronata* var *calif.*
- 69 *Elatine californica* Gray
- 5570 *Cereus Munzianus* ined.
- 5571 *Opuntia chlorotica* Engelm. + B&Z
- 72 *Opuntia* —

ⁱⁿ
~~near~~ Meniffee Valley mud flat

Pilot Knob

DM Johnston 5/14/22

one plant in deep sheltered rock-

crevice

May 19

dried
mud-flat

Meniffee Valley

Locally abundant on dry rocky slopes,
2 miles below Kenworthy in Thomas
Valley.

5/21/22

locally frequent on dry rocky walls
at mouth of Pipe Creek, near Kenworthy
in Thomas Valley

5/20/22

abundant in dry ~~wood~~ fans
at mouths of canyons along
base of mtns at Gilman Relief
Hot Springs

5/21/22

May 30, 1922.

Swartout

- 5573 *Fritillaria pinctum* Davidson
 Flower open; anthers dull
 vermilion-brown; perianth
 greenish yellow within, spotted
 with ^{chocolate} brown; spots toward base
 of perianth a reddish brown.
 Stems with 2-6 fls.
 Leaves glaucous.
 each plant with many young
 bulbs about base
- 5574 *Ceanothus cordulatus* Keel.
- 75 *Arctostaphylos* —
- 76 *Lewisia rediviva* —
- 77 *Tellima* —
- 78 *Veratrum californicum* Durand
- 79 *Galeum bifolium* Gray

Valley, San Antonio Mts

occasional on high slopes, under
pines & firs in soil with many
pine needles etc.

7200 ft.

~~matted~~
flat clumps 2-3 ft high & 7000 ft
15-20 ft across on high slopes,
especially in pockets of slopes
similar clumps on same places. 7000 ft

high ridge among pines

frequent in needles under 7000 ft
pines & firs
occasional clumps in S Mescal 6800 ft

Valley
moist flat along Mescal 6700 ft
forming patches in alluvial soil

- 5580 *Amelanchier alnifolia* Nutt
- 81 Liverwort *Piccia crystallina* L.
- 82 rust on *Euphorbia*
Uromyces coöordinatus Arthur
- 83 *Euphorbia Palmeri* Engelm
- 84 *Chara*
- 5585 *Lupinus*
- 86 "
- 87 " *odoratus*
- 88 "
- 89 "
- 90 *Mimulus Bigelovii* Gray
- 91 " *nohavensis* Lemmon

5/30/22

Moist slopes top of Mesquite Valley

moist pocket on hillside among
pines 6800 ft. Swartout.
head of Swartout

grassy slopes among oaks & pines
head of Swartout
pond at Wrights Ranch

Granite Well, Mohave Desert ^{E.M. Johnston} 5/13/22
' open desert

"

"

"

"

Bet. Cutoffs P.O. & Cu City open desert

2 mi. north of Barstow, sandy clearing "

3 mi south " " "

Copper City, locally common on hillside
among shrubs

$\frac{1}{2}$ way between Barstow & Victorville
on sides of draw in gravelly soil.

- 5592 Moss *Tortula Müllerii*
- 93 " *Grimmia pulvinata*
- 94 " *Tortula inermis* Mont.
- 95 "
- 96 " *Endodium verticillatum*
E
- 97 " *Bryum capillare*
- 98 "
- 99 *Microseris linearifolia* (DC) Schultz
- 5600 *Malva nicaensis* All
- 1 *Ranunculus aquatilis* L.
- 2 *Echinocactus polyancistrus*
- 3 " "
- 4 " "
- 5 " "

- Ken Camp, San Jacinto Mts 5/19/22 Mung.
 on rocks on shaded ridge at 5000 ft Johnston
 San Jacinto Canyon. 1 mi above mo of
 Strawberry Creek, along small stream 4000 ft
 Granite Well, common under rocks 5/13/22 DM Johnston
 Claremont, stone wall. March 1922 Mung. Pratt
 Laguna damp hillside, May 4, 1919 Mung
 Hills southwest of Pomona 2/26/21 1000 ft
 moist bank Mung
 " " "
 dry slopes, Puddingstone Canyon 5/15
 roadside & vacant lots, Cor. College Mung
 & 2d Claremont. 5/10/22
 sluggish stream east of Puddingstone Mung
 5/10/22
 13 mi north of Barstow DM Johnston 5/15/22
 10 mi " " Victorville " "
 15 " " " " " "
 Granite Well " "

- 5606 *Echinocactus polyancistrus* - Engelm. & Bigel
- 7 " *polycephalus* Engelm. & Bigel
- 8 " " " "
- 9 " " " "
- 10 *Penstemon* ^{Palmeri var} *Grinnellii* (Eastw.)
M. & J.
occasional in
- 11 *Collinsia* sp
- 12 *Gilia parviflora* Benth
- 13 *Lewisia brachycalyx* Engelm. moist gravelly soil
- 14 *Lewisia nevadensis* Robinson "
- 15 *Nemophila pedunculata* Dougl. "
fls white with fine
dark blue lines in throat
- 16 *Montia perfoliata* Howell

4 mi south of Crutts Post-office ^{Englewood} 5/15/22

11 mi north of Victorville " "

Grainite Well " "

10 m no of Barstow " "

Santa Ana River ^{May} June 9.

where road to Big Bear crosses

sandy wash

shaded bank below Toakes "

common on gravel slopes under pines
Bear Valley 6/10

under pines near mtn meadow 2 mi east
of Bluff Lake 7500 ft 6/10

" " "

" " "

" " "

Trip to Bear Valley June 9-

- 5617 *Minulus primuloides* Benth
- 18 *Moss Philonotis fontana*
- 19 *Montia Chamissoi* D. & J. frequent
- 20 *Ranunculus alismifolius* ^{geyer} abundant
var. *alismellus* Gray
- 21 *Viola praemorsa* Dougl. abundant
- 22 *Pedicularis semibarbata*
Gray
- 23 *Phacelia curvipes* Torr.
approaching var. *Davidsonii* (Gray) ^{Bland}
locally common, covering ground between
- 24 *Ranunculus californicus* ^{Benth} frequent
var. *Ludoviciana* (Greene) Davis
- 25 *Galium bifolium* Wats. local
- 26 *Dodecatheon alpinum* ^{greene} " common
- 27 *Viola blanda* Willd. abundant
fls white with purple lines
- 28 *Viola canina* L. var. *adunca* Gray frequent
fls violet

with W M Pierce

6/10

Wet meadow, 2 mi east of Bluff Lake 7500 ft

shallow water, " " "

" " " " "

" " " " "

dry gravel slope under firs 2 mi east
Bluff Lake "

" " "

"

in pockets

"

"

edge of meadows, 2 mi east of Bluff
Lake

" "

"

"

don't in wet "

"

at edges of "

"

- 5629 *Mimulus Tilingi* Regel
var. *corallinus* (Greene)
- 30 *Taraxacum officinale* common
var. *lividum* (Waldst. & Kit) Koch
- 31 *Carex Hasselii* Bailey
arvensis Nutt.
- 32 *Equisetum arvense* L.
- 33 *Trifolium longipes* Nutt.
- 34 *Luzula campestris* DC.
- 35 *Carex* ~~*Bolanderi*~~? *obovata* (Fern.) Mackenzii
- 36 " *illota* Bailey
- 37 " *nebraskensis* Dewey
- 38 *Veronica serpyllifolia* L.
- 39 Moss *Bryum turbinatum*
- 40 *Potentilla wheeleri* Wats.

in
Rock

Along small stream, in meadow
about 2 mi east of Bluff Lake 750 ft
meadows " " "

local in " " "

frequent " " "
especially in clear spaces about logs,
gravel pockets, etc.

frequent in meadows 2 mi east Bluff
Lake 6/10

" " "

occasional

ngie

frequent

"

x

abundant

abundant

"

"

"

Bear Valley

- 5641 *Euphorbia Palmeri* Engelm
- 42 *Salix Scouleriana* Barr
- 43 *Hesperochiron californicum* Wats
- 44 *Veronica americana* Schwein
- 45 *Ranunculus Cymbalaria* Pursh
- 46 *Lewisia rediviva* Pursh
- 47 *Zanichellia palustris* L.
- 48 *Lemna trisulca* L.
- 49 *Lewisia brachycalyx* Engelm
- 50 *Lewisia argyrocoma* Rydb.
- 51 *Mimulus purpureus* Grant
- 52 *Gilia* sp

6/10

abundant, edges of valleys
 2 mi east of Bluff Lake 7500 ft
 " along streams in meadows "

locally abundant in wet meadow 6800 ft
 China Garden
 wet small stream "

" " "
~~wet meadow~~ ✓ stony slopes "

small stream running into lake "

" " " "

low moist ground
~~edge of wet meadow~~, China Garden "

dry slopes " " "

~~edge of wet meadow~~
 low moist ground " " "

" " " " "

Bear Valley 6/10

- 5653 *Viola chrysantha* Hook common,
- 54 *Sidalcea pedata* Gray abundant
- 55 *Alopecurus aristulatus* ^{Mitch} local
- 56 *Collinsia Childii* Bary common
- 57 *Minulus* *Suttsdorfii* Gray
- 58 *Antennaria dimorpha* (Nutt) T & G. n
- 59 *Ceratophyllum demersum* L Bear
- 60 *Phlox austromontana* Cov. rocky
- 61 Moss *Funaria hygrometrica*
- 62 Grass *Poa pratensis* L
- 63 *Poa* ~~*Sandbergii* Vasey~~
pratensis L
- 64 *Carduus Drummondii* var. *acaulescens*
Cov.
- 65 *Juniperus occidentalis* Hook

low moist ground, China Garden 6800

" " " " "

in shallow pool " " "

low moist ground " " "

" " " " "

" " " " "

Lake

slope, Stilwell Camp

low moist ground near lake
China Garden

"

"

"

"

"

"

"

"

"

Common China Garden low slopes.
trees 5 ft thick, 40 ft high

Bear Valley 6/11/22

- | | | |
|------|---|------------|
| 5666 | <i>Senecio ionophyllus</i>
var. <i>bernardinus</i> (Greene) Hall | Abundant |
| 67 | <i>Castilleja</i> — | " |
| 68 | <i>Lupinus</i> — | Local |
| 69 | <i>Equisetum Funstoni</i> Eaton | Local |
| 70 | <i>Iris missouriensis</i> Nutt.
Fls pale lilac with white & purple lines & yellow band near base | Common |
| 71 | <i>Colyptrodium umbellatum</i> (Torr) | Frequent |
| 72 | <i>Sarcodes sanguinea</i> Torr. | Occasional |
| 73 | <i>Smilacina stellata</i> (L.) Desf. | " |
| 74 | <i>Phacelia curvipes</i> Torr.
Fls pale lavender, very delicate in texture | Common |
| 75 | <i>Arctostaphylos</i> | Common |
| 76 | <i>Dodecatheon Hendersoni</i> Gray | " |
| 77 | Pro <i>Troximon</i> sp | Occasional |

dry rocky slopes	7000
" " "	7000
" " "	7000
base of " " "	6800
" in ravines & meadows	6800
base of lower petals	
" in deep soil on slopes	6800
on pine covered slopes	7000
along banks of small creek	7000
on slopes & in ravine	7000
ture on dry slopes & ridges	7000
on gentle slopes under pines	7000
" " "	7000

Bear Valley 6/11

- 56 78 *Oenothera albicaulis* Pursh Occasional
- 79 *Phlox bernardina* M & G. Common
fls white to pink
- 80 *Prenes emarginata* Walf Abundant
- 81 *Ribes nevadense* Kellogg "
- 82 *Collinsia Torreyi* Johnston
var. *Wrightii* Wats. ~~Common~~
fls upper lip blue lower white, plain
- 83 *Lupinus Breweri* Gray Common
- 84 " *Grayi* Wats "
- 85 *Cystopteris fragilis* ~~Occasional~~ Frequent
- 86 *Gilia* — Local
fls deep blue
- 87 *Astragalus lecturus* Wats Locally
- 88 *Allium Burlewii* Davidson Occasional
disint. gr.
- 89 *allium Parryi* Wats Abundant
pale lilac fls

on dry slopes

7000 ft.

" " "

7000 ft.

in patches on damp slopes

7500 ft.

2 mi east Bluff Lake

along small brook

7500 ft.

2 mi east Bluff Lake

in flat places under pines

7300 ft.

clammy

as ~~close~~ mats on dry slopes

7000 ft.

on ^{rocky} dry slopes

7000 ft.

along small stream

7500 ft.

Red Ant Creek

in flat places under pines

7300 ft.

abundant, dry rocky hillside

7300 ft.

al on dry rocky slopes & in

7300 ft.

grated gravel

ant in heavy soil on

7000 ft.

dry slopes

Bear Valley 6/11

- | | | |
|------|--|------------|
| 5690 | <i>Arenaria capillaris</i>
var. <i>ursina</i> Robins. | |
| 91 | <i>Castilleja cinerea</i> Gray | Locally |
| 92 | <i>Lomatium Parishii</i> C. & R. | " |
| 93 | <i>Draba Douglasii</i> Gray | " |
| 94 | Moss | |
| 95 | " | Banks |
| 96 | <i>Chamaecrista santolinoides</i> Greene | Frequent |
| 97 | <i>Arabis perennans</i> ? Wats | occasional |
| 98 | <i>Ceanothus cordulatus</i> Kellogg | common |
| 99 | <i>Cercocarpus ledifolius</i> Nutt | locally |
| 5700 | <i>Lotus crassifolius</i> (Benth.) | " |
| 1 | <i>Antennaria speciosa</i> E. Nels. | " |

Frequent on dry rocky slopes 7000 ft

" " " " 7200 ft

" " " " "

" " " " "

Tufts on rocks 7300 ft

small brook 7300 ft

on dry slopes of disintegrated granite 7300 ft

on dry rocky slopes 7300 ft

on slopes among pines 7000 ft

frequent as arborescent 7200 ft

found on dry rocky slopes

frequent on dense slopes 7400

dry rocky slopes 7000

Bear Valley 6/11

5702 Mimulus ? Brewer (Green) Coville
pink fls

3

Poas

Bear Valley 6/12

4. Astragalus ~~Pacificus~~ Gray local
Douglasii var. tejonensis

5 Zannichellia palustris L

6 Ranunculus aquatilis L.

7 Chara

8 Abronia nana Wats

9 Euphorbia albomarginata ^{T. & G.} under pines,

10 Viola praemorsa Dougl

11 Phlox austromontana Cov.

12 Potentilla Anserina L

13 Sisyrinchium bellum Wats

locally abundant
 " " under pines
 " " gentle slope

6900 ft

7000 ft

sandy plain, near east end Bear Lake 6900
 Jones
 shallow pond, near " "

"

"

"

"

"

locally abundant sandy washes
 north side Bear Lake

6900

dry ~~hollow~~ limestone slope

6900

"

"

"

"

limy marsh, north side Bear Lake 6900

"

"

"

Bear Valley 6/12

- 5714 *Phacelia californica* dry
- 15 *Lappula floribunda* (Helms) Greene ^{dry}
~~floribunda~~ _{floribunda}
- 16 *Equisetum Funstoni* A. C. Eaton
- 17 *Phacelia* — dry
- 18 *Solanum Xanti* Gray
- 19 *Astragalus* ^{leucolobus Jones} ~~X~~ among sage
- 20 *Mentzelia* — "
- 21 *Oreocarya* ^{suffruticosa Greene}
^{var. abbreviata (Greene) Macbr.}
- 22 *Eremocarya* ^(Tr.) *micrantha* Greene
^{var. lepidota (Gray) Macbr.}
- 23 *Stellaria longipes* Goldie
- 24 *Barbarea orthoceras* Ledeb.
- 25 *Plagiobothrys ursinus* Gray

limestone slope, no side Bear Valley	6900	
slopes, among sage-brush	"	"
low ground, near pool	"	"
limestone slope	"	"
" "	"	"
sage-brush, no side	"	"
"	"	"
"	"	"
"	"	"
wet meadow	"	"
"	"	"
among sage brush no side	"	"

Bear Valley 6/12

- 5726 *Calyptridium Parryi* Gray among sagebrush No
- 27 *Carex nebraskensis* Drury
- 28 *Arabis* fer
- 29 *Arabis* — dry s
- 30 *Streptanthus bernardinus* (Greene) Parish
- 31 *Carlaanthus amplexicaulis* Wats. n
- 32 *Salix lasiolepis* Benth. along s
- 33 *Lotus* sp. common d
- 34 *Pellaea mucronata*
var *calif.* (Lammon) M. J. n
- 35 *Penstemon caesius* Gray n
- 36 *Moss Phyllia annotina* (L.) along
- 37 *Sisymbrium* — common

mo	no side of Bear Valley	6900
	wet meadow	"

n

n

slope, disintegrated granite,
no side Bear Lake

a

u

a

u

Small stream n 4

dry slopes, disintegrated granite
no side Bear Lake

u

u

a

u

small stream

u

along roadside

u

Bear Valley Trip 6/13

- 5738 *Krameria* Grayi Rose & Painter
- 39 *Carduus mohavensis* Greene
- 40 *Calochortus Palmeri* Wats
- 41 *Stanleya pinnatifida* Nutt.
- 42 *Trifolium Wormskjoldii* Lehm
- 43 *Callandanthus* ^{major (Jones) Payson} ~~crassicaulis~~ Wats
var. ~~glaber~~ M & Jones
- 44 *Calochortus Kennedyi* Porter
- 45 *Selaginella asprella* Maxon
- 46 *Cryptantha* ^{ptero-carya} ~~Leptoptera~~ L. Brant
- 47 *Penstemon Eatonii* Gray
- 48 *Allium bisceptrum* Wats
- 49 *Calochortus Nuttallii* Torr

dry rocky fan, Cushenberry Springs

wet meadow

"

"

"

rocky wash

"

wet meadow

"

and

dry rocky slopes, Cactus Flats

"

"

wash

"

"

"

"

"

"

"

dry slopes above " 7000

"

"

"

"

"

grew all way down to Cushenberry
loose soil.

rocky slope East end Baldwin L "

"

"

Bear Valley 6/13

- 5750 *Eriogonum* *saxatile* Wats.
- 51 *Arabis* *Parishii* Wats
- 52 *Erigeron* *concinus*
var. *aphanactis* Gray
- 53 *Lupinus* *Grayi* Wats.
- 54 *Castilleja* *linearifolia* ² Benth
- 55 *Lupinus* *Grayi* Wats
white form of *L. Grayi*
- 56 *Linum* *Lewisii* Pursh
- 57 *Cryptantha* -
- 58 *Crucifer*
- 59 *Cereus* *Munzii*
fls like those of 5570
- 60 *Cereus* *mohavensis* Engelm
fls scarlet

dry slope, no side Baldwin Lake 7000

" " " " "

" " " " "

" " " " "

" " " " "

" so side Bear Lake "

" no " Baldwin " "

" " " " "

" so " Bear Lake "

locally abundant on dry rocky
slopes along north side of Baldwin
Lake (among junipers) 7000 ft.

locally abundant on dry rocky
slopes ^{divide at} along north-east end of
Baldwin Lake 7000 ft.

57, 61 *Triglochin maritima* L.

62 ~~Peziza~~ *Pseudoplectania fulgens* (Pers.)
Tuckel

63 *Polypore*

limy marsh, north side of Bear Lake 6900
June 11, 1922

Bear Valley

6/10/22

dry ground under pines

7500 ft

Bear Valley

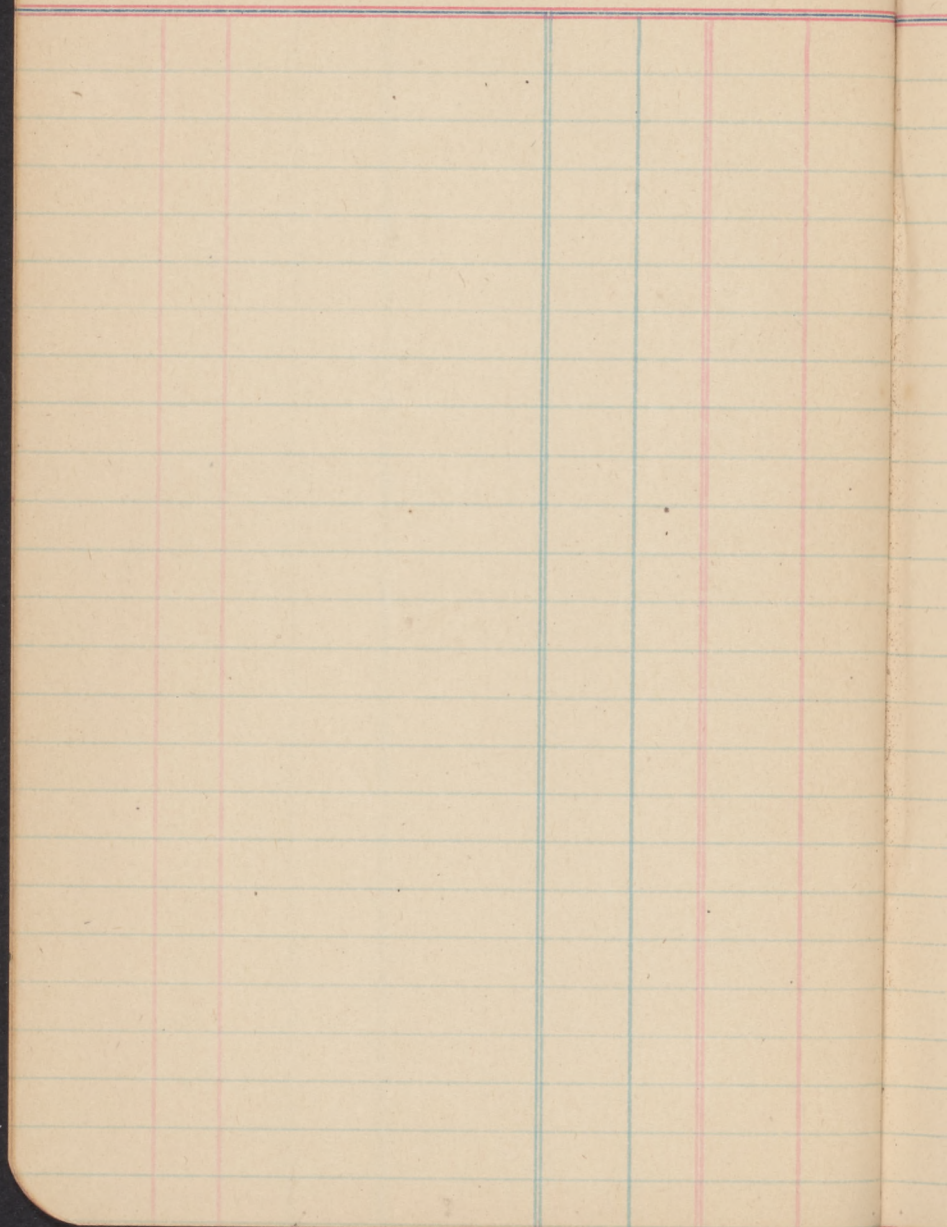
on *Juniperus occidentalis*

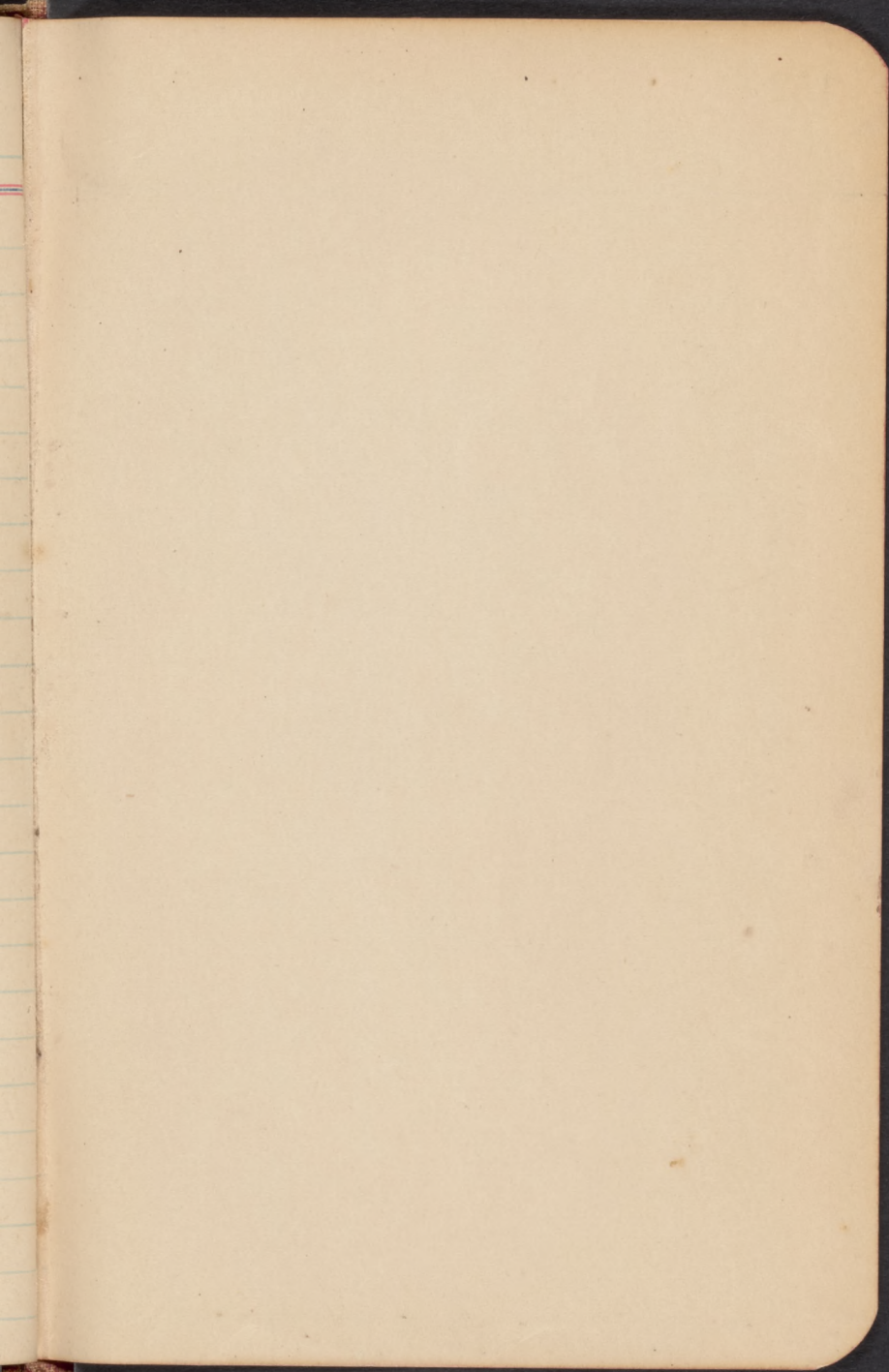
6/11/22

7000 ft

This image shows a blank ledger page from a notebook. The page is cream-colored and features a grid of horizontal and vertical lines. Horizontal lines are light blue, while vertical lines are a mix of red and blue. A double red line runs across the top of the page. The page is divided into several columns of different widths by these vertical lines. The left edge of the page shows the binding of the notebook, and the right edge shows the gutter where the page meets the next one. The page is completely blank, with no writing or markings.

A blank ledger page with a grid of columns and rows. The page is cream-colored with light blue horizontal ruling. Vertical lines in red and blue create columns of varying widths. From left to right, there are two narrow red columns, a wide blue column, a narrow blue column, a wide red column, and a narrow red column. The right edge shows the binding of the notebook.





G. K. Merrill
564 Main St
Rockland, Me.

lithens

5736

Hoegge 9 1st & Main
Knap sacks 5
Army store Bdry 3 & 4

Army store

2000
2000
2000
2000

481

OK

L1

92

8

01

8

5

5

91

6

5

88

144

182

8

61

06

8

4

5

81

4

81

#

6

6

21

32

51
Merrill

30
+ amount

Downingia pulchella
near Perris

Banning fl. show

15.00

printer
tire 3.00
gas 1.25

4.25

Keck

9.00
5.00
4.00

17.50
6.30
11.20

2.00
8.30

17.50
4.25
13.25

2.60

6.30
2.60
3.70

